European Monitoring Centre
for Drugs and Drug Addiction

EUROPEAN DRUG SITUATION
TECHNICAL DATA SHEET

Differences in patterns of drug use between women and men

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Differences in patterns of drug use between women and men

Key findings

Males outnumber females among drug users and clients attending drug treatment services.

Male to female ratios vary in magnitude across different countries in the European Union.

Among female school students, lifetime prevalence for cannabis and ecstasy are closer to those of their male counterparts than is the case for adults.

Country variations in the gender ratio are more marked among adults than among 15- to 16-year-olds and more marked for ecstasy than for cannabis.

The number of females in relation to males tends to increase as prevalence of drug use increases.

The number of females in relation to males is generally lower for the more illegal drugs and recent or frequent patterns of drug use.

Increases in drug use among 15- to 16-year-old males are usually accompanied by increases among females but tend to occur earlier or more rapidly among males.

Most of the care provided by drug treatment services is for opiate, cocaine and cannabis problems, for which male clients far outnumber females.

The proportions of females among clients receiving drug treatment are highest among young (under 20 years old) clients with problems relating to amphetamine-type stimulant (ATS) drugs and among older (over 39 years old) clients with problems resulting from the use of sedative (pharmaceutical) drugs.

Technical note

Differences between males and females are presented here as ratios of prevalence among males over females. Ratios higher than 1 indicate more males than females, for example a ratio of 2 indicates twice as many males than females. Ratios less than 1 indicate more females than males so that a ratio of 0.5 will indicate twice as many females as males. (Diagrams are drawn with logarithmic scaling.)

Typically three observational time windows are used by studies of illicit drug consumption. These are ever use or lifetime prevalence (LTP), recent use defined as use in the last year (LYP) and current use defined as use in the last month or 30 days (LMP) before interview. Lifetime prevalence indicates, at least, experimental use.

Introduction

In the European Union men are more likely than women to use illicit drugs. Gender differences in patterns of drug use are often considerable and are reflected in the fact that among the clients of drug treatment services the proportion of women is only around 20%.

In this technical data sheet gender differences are explored in European data from three sources: school surveys (1), general population surveys (2) and drug treatment services (3) in the European Union. These data suggest that gender differences among people using drugs and attending drug treatment services, and the magnitude of these differences, are linked to a number of different factors. Here the impact of national situation, age of drug user and types of drug used on observed differences in patterns of drug consumption is explored in detail. Clearly, other factors are also likely to be important in influencing these male to female ratios. The EMCDDA will be preparing a more extensive special issue on gender in 2006 as part of its annual reporting exercise.

Gender differences in both prevalence of drug use and prevalence of treatment attendance vary considerably by country. For example, in Cyprus, men attending drug treatment services outnumber women by 9:1, compared with Hungary, where the ratio is much lower (1.6:1).

Age also influences the size of the gender difference: in many countries, the difference in lifetime experience of cannabis use is lower between male and female school students than between males and females in the general adult population (aged 15–64). In general, males outnumber females in estimates of cannabis use but females outnumber males in estimates for the use of pharmaceutical tranquillisers and sedatives. Male–female differences also vary with different patterns of drug use (Figure 1). For example, male predominance is greater for recent or frequent drug use than for occasional or experimental drug use.

Among clients of drug treatment services, the proportion of males attending with cannabis, cocaine and opiate problems is higher than the proportion with ATS (4) problems. And in some countries female clients being treated for problems with hypnotic and sedative drugs outnumber males.

(1) ESPAD (the European School Survey Project on Alcohol and Other Drugs) 1995, 1999 and 2005 (See http://www.espad.org/method.html for details).

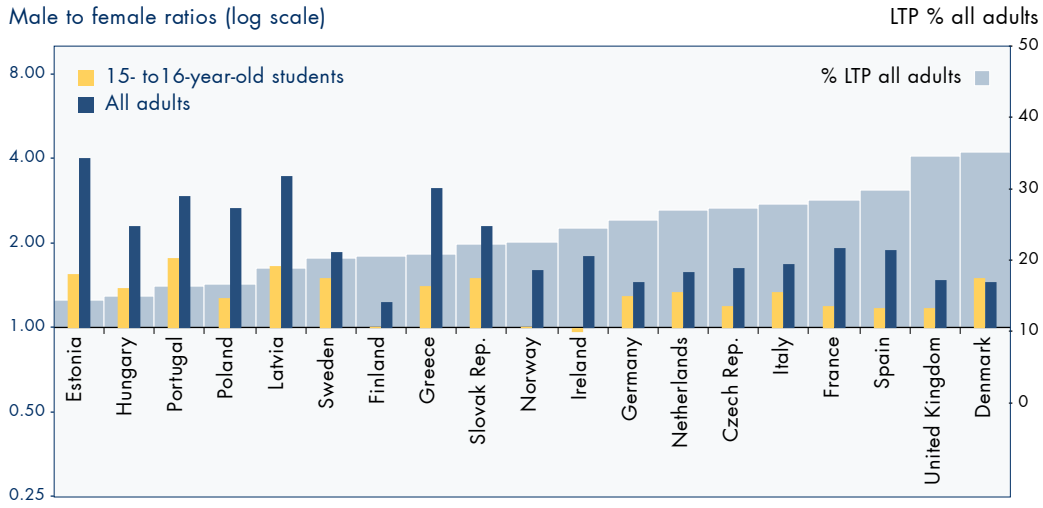
(2) There are harmonised instruments to collect data on drug use in the general population in European Union Member States (See http://www.emcdda.eu.int/?nnodeid=1380 for details).

(3) There are harmonised instruments to collect data on drug treatment clients in European Union Member States (See http://www.emcdda.eu.int/?nnodeid=1420 for details).

(4) The term ATS is used to refer to amphetamine-type stimulants – this group includes the ecstasy group of drugs, amphetamine and methamphetamine.

Figure 1

Comparison of male to female ratios for 15- to 16-year-old students and all adults, LTP cannabis



This figure shows that the male predominance seen in adults at low prevalence levels is less evident among students.

Notes

Countries are ordered by increasing levels of prevalence (LTP, all adults) according to the 2004 Statistical bulletin (right-hand axis). Their male to female ratios are plotted on a logarithmic scale (left-hand axis), and most are greater than 1.0 (equality).

Sources

15- to 16-year-old students, ESPAD 2003; all adults (15–64 years old), 2004 EMCDDA Statistical bulletin.

ESPAD 2003 figures for Germany are based on six regions only (Bavaria, Brandenburg, Berlin, Hesse, Mecklenburg-Western Pomerania and Thuringia).

Cannabis

In Europe, the vast majority of those young people that have tried an illicit drug have used cannabis, and males are generally more likely to have done so than females. Depending on the specific age group and gender, lifetime prevalence for having used cannabis at least once ranges from 2% of 15- to 16-year-old-female students in Cyprus to 50–52% of young adult males in the United Kingdom and Denmark.

Males outnumber females for lifetime experience of cannabis in most of the countries surveyed. Among school students aged 15–16 years, more males have lifetime experience of cannabis than females in all but three countries (Ireland, Finland and Norway). School student male to female ratios are fairly consistent across most countries in the European Union, ranging from 1.0 in Ireland, Finland and Norway to 1.8 in Portugal. However, gender differences for lifetime experience (LTP) of cannabis use among all adults (aged 15–64) reveal considerably greater variations across countries, in that male to female ratios range from 1.25 in Finland to 4.0 in Estonia. In European Union countries with relatively high prevalence rates, the difference between male and female adults tends to be less marked than in countries with low prevalence rates. Conversely, larger gender differences among adults tend to be reported in countries with relatively low lifetime prevalence for cannabis. These are largely the new European Union Member States (with the exception of the Czech Republic and Slovenia), together with Greece and Portugal. Sweden, Norway and Finland are exceptions as prevalence is relatively low and male–female differences minimal (Figure 1).

Data also show an increase in male–female differences from young to older age groups. Ratios for lifetime experience of cannabis increase from a range of 1.0–1.8 among 15- to 16-year-old school students to 1.25–4.0 among all adults.

The predominance of males over females increases as the observation time frame is shortened from lifetime use through recent (LYP) to current use (during the last 30 days). Male–female differences for lifetime experience (LTP) range from 1.2 to 4.0, whereas recent use (LYP) ranges from 1.5 in Finland to 4.3 in Hungary. In the case of current use, the male–female ratios are even higher, ranging from 1.8 in Norway to 5.9 in Portugal. However, caution is required in interpreting these figures as random variations may be high as a result of the low numbers reported for recent and current use (Figure 2). Among 15- to 16-year-old school students, sex ratio differences are considerably greater for the 'frequent use' of cannabis (40+ times during a lifetime) as compared with those found for lifetime prevalence or last year prevalence. In some countries, male students are twice, three times and, in one country, even four times as prevalent as females in the frequent use group. Again some caution is needed in interpreting these results because of the relatively small numbers of students reporting frequent use involved (Figure 3).

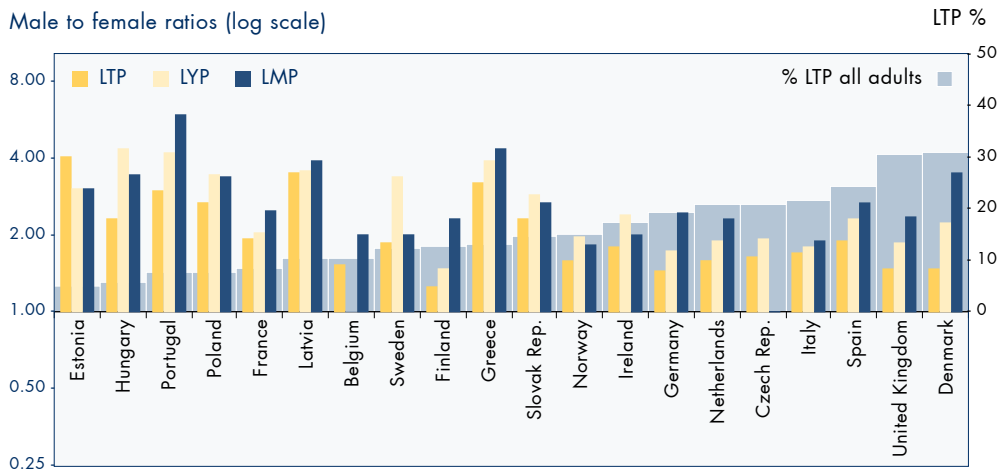
Since 1995 the most marked, continuous increases in lifetime experience of cannabis among both male and female school students have taken place in the Czech Republic, Estonia, France, Slovenia and the Slovak

Republic. Although increases generally occurred in parallel among both male and female students, Figure 4 illustrates that in 2003 lifetime prevalence for cannabis loses the strong male predominance in high-prevalence countries and where there are substantial changes from 1995 it is generally towards more equality between males and females.

The ratio of males to females among clients attending drug treatment services for cannabis problems is higher than that for drug treatment in general and is particularly high among younger people. Variations between countries are evident, with the highest male to female ratios reported in Spain and the lowest in Slovenia (Figure 5).

Figure 2

Male to female ratios for all adults, LTP, LYP and LMP cannabis



This figure shows that, among adults, the male–female ratio is lower for experimental (LTP) use than for last year use and is generally greatest for use during the past month. The correlation with lifetime prevalence is 0.82 (log-odds transforms).

Notes

Countries are ordered by increasing levels of prevalence (LTP, all adults) according to the 2004 Statistical bulletin (right-hand axis). Their male to female ratios are plotted on a logarithmic scale (left-hand axis), and all are greater than 1.0 (equality).

Sources

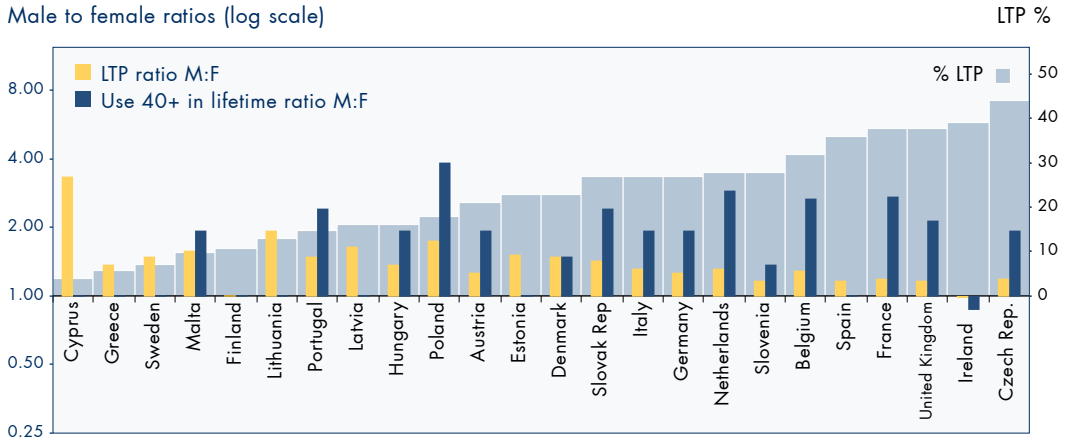
2004 EMCDDA Statistical bulletin.

In Belgium no data are available for last year's prevalence.

In the Czech Republic no data are available for last month's prevalence.

Figure 3

Male to female ratios for 15- to 16-year-old students for experimental (LTP) and repeated (40+ in lifetime) cannabis use, 2003



This figure shows that male–female differences in experimental (LTP) use are lower in countries with high prevalence levels but that repeated (40+ in lifetime) use is higher among males in all countries from where date are available (except Ireland).

Notes

Countries are ordered by increasing levels of prevalence (LTP) of all students in 2003 (right-hand axis). Their male to female ratios are plotted on a logarithmic scale (left-hand axis), and most are greater than 1.0 (equality).

Sources

15- to 16-year-old students, ESPAD 2003.

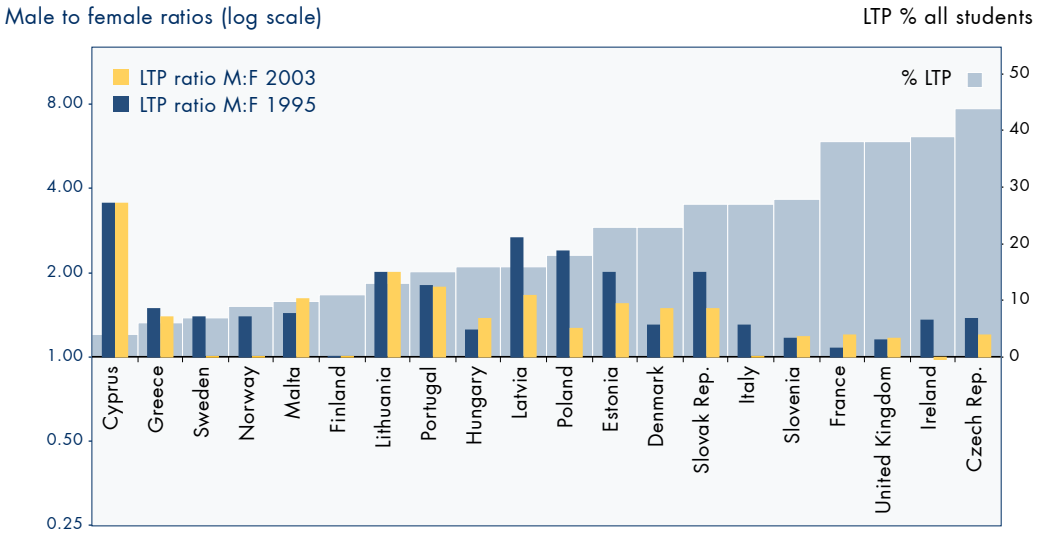
Figures for Germany are based on six regions only (Bavaria, Brandenburg, Berlin, Hesse, Mecklenburg-Western Pomerania and Thuringia).

Data on 40+ times in lifetime use are not available from Spain.

In Cyprus, Sweden, Finland, Lithuania, Latvia and Estonia repeated use ratios could not be computed because of a zero prevalence.

Figure 4

Comparison of male to female ratios for 1995 and 2003 among 15- to 16-year-old students, LTP cannabis (ESPAD surveys)



This figure shows that, in 2003, the strong male predominance of LTP found in high-prevalence countries was eliminated and that the substantial changes occurring after 1995 tended to increase the equality of use among males and females.

Notes

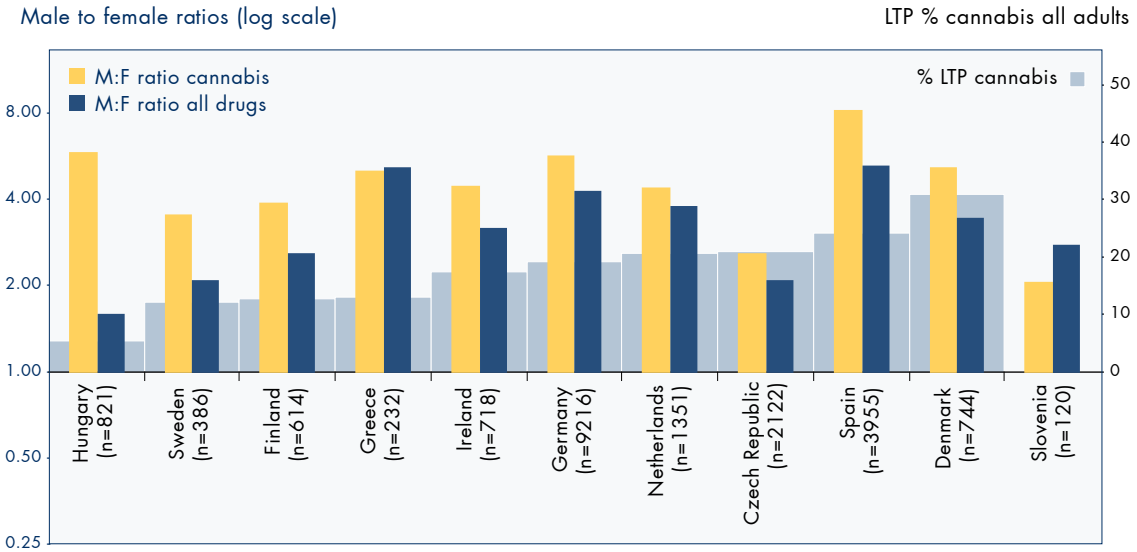
Countries are ordered by increasing levels of prevalence (LTP) in 2003 (right-hand axis). Their male to female ratios are plotted on a logarithmic scale (left-hand axis) and are almost always greater than 1.0 (equality).

Sources

ESPAD 1995 and 2003.

Figure 5

Male to female ratios among new clients demanding treatment for cannabis in outpatient treatment centres by country (no. clients where primary drug was known), 2002



This figure shows that the male predominance of cannabis use is higher than the male predominance of general drug use in all countries except Slovenia. It should be noted that male to female ratios are based largely on data from the Czech Republic, Germany and the Netherlands.

Notes

Countries are ordered by increasing levels of prevalence (LTP, all adults) according to the 2004 Statistical bulletin (right-hand axis). Their male to female ratios are plotted on a logarithmic scale (left-hand axis), and all are greater than 1.0 (equality).

Sources

2002 TDI outpatient centres, REITOX national reports, 2003, n = 20 279.

Ecstasy

Overall prevalence rates for ecstasy are much lower than for cannabis although considerable inter-country variation exists. Reported rates for those who have ever used ecstasy (LTP) range from 0.1% among adult females (15–64 years old) in Sweden to 17.3% of young adult males (16–34 years old) in the United Kingdom.

Variations in male to female ratios across countries are more marked for ecstasy use than for cannabis use, and this applies to both school students and adults. In over half of the European Union countries reported here, lifetime experience of ecstasy use is the same in 15- to 16-year-old female and male students, and in Finland the figure for females is twice that of males, albeit the prevalence rates are very low and therefore caution should be use in interpreting this data. In the remaining countries, where male student ecstasy users outnumber females, ratios range from 1.3 in France to 2.0 in Denmark, Greece, Italy, the Netherlands and Sweden. Among all adults (15–64 years) in most of the European Union countries surveyed, lifetime experience of ecstasy is generally lower among females than males. However, gender differences for lifetime experience (LTP) of ecstasy use reveal even greater variations across countries than for cannabis. Male to female ratios range from 1.6 in Italy to 6 in Poland (Figure 6).

As with cannabis, there is a progressive increase in male to female ratios for lifetime experience of ecstasy with increasing age. Ratios increase from a range of 0.5–2.0 among 15- to 16-year-old school students to a range of 1.0–6.0 among all adults (see Figure 6).

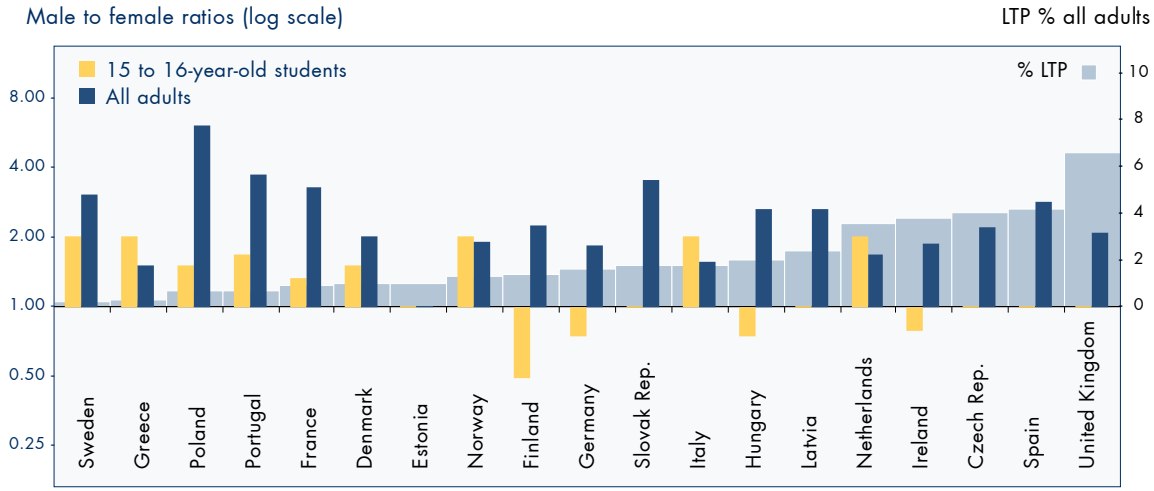
Figures for recent ecstasy use are low. In contrast to cannabis, gender differences are generally lower (range 1.0–4.30) for recent use (LYP) than for lifetime experience (LTP) (range 1.0–6.0). Among all adults the predominance of males is higher for recent use than for lifetime use in about half of the countries with information available.

Since 1995, small but continuous increases in the lifetime use of ecstasy among school students have taken place in the Czech Republic, Estonia and Portugal. These have occurred largely in parallel among both male and female school students.

Ecstasy is not a commonly reported drug for which individuals seek help at specialised drug treatment services in Europe. Of those who do, the proportion of females is generally higher than for those seeking help with problems with other drugs, but there are considerable variations between countries and no simple pattern is observable.

Figure 6

Male to female ratios for 15- to 16-year-old students and all adults, LTP ecstasy



This figure shows that there is a tendency towards male predominance of ecstasy use among adults, although prevalence is low, and probably no gender difference at all among students.

Notes

Countries are ordered by increasing levels of prevalence (LTP) of all students in 2003 (right-hand axis). Their male to female ratios are plotted on a logarithmic scale (left-hand axis), and adult ratios in no country are less than 1.0 (equality), in contrast to student ratios.

Sources

15- to16-year-old students, ESPAD 2003; all adults (15–64 years old), 2004 EMCDDA Statistical bulletin.

ESPAD 2003 figures for Germany are based on six regions only (Bavaria, Brandenburg, Berlin, Hesse, Mecklenburg-Western Pomerania and Thuringia).

Tranquillisers and sedatives

Tranquillisers and sedatives can be used both legally as prescribed medicine and illicitly without a doctor's prescription. Comparable data on gender differences for this type of behaviour are not available from adult population surveys.

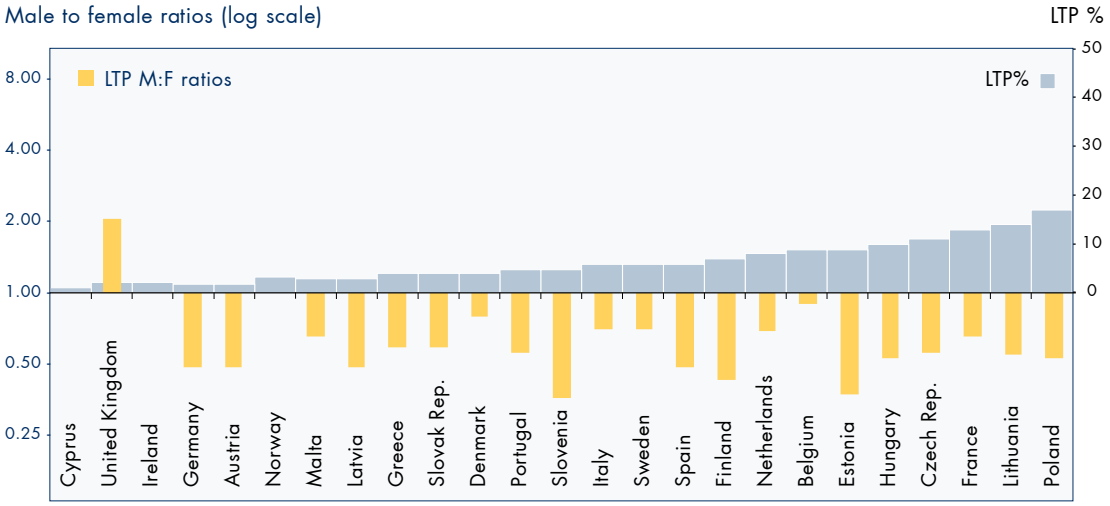
Among school students (aged 15–16 years) in the European Union, surveyed by ESPAD, the prevalence of lifetime experience of tranquillisers or sedatives without a doctor's prescription ranges from 1–2% of females in Cyprus, Ireland, Germany, Austria and the United Kingdom to 18% and 22% of females in Lithuania and Poland respectively. In contrast to other forms of drug use, use of tranquillisers and sedatives is higher among female school students than among male students in all the European Union countries surveyed with the exception of four Member States (Cyprus, Ireland, Norway and the United Kingdom). In the United Kingdom tranquilliser and sedative use is twice as high among males as among females, but prevalence estimates for the use of this type of illicit substance are very low, and the difference has to be interpreted in this context (see Figure 7).

Between 1995, 1999 and 2003, falls in prevalence generally outnumber increases but few consistent changes are observable in school students' use of tranquillisers or sedatives without a doctor's prescription. Only Estonia experienced a substantial increase, which was mainly among female students.

Relatively low numbers of people in the European Union are reported to be receiving treatment for problems related to the illicit use of sedative drugs. In general, among those countries reporting, no clear differences stand out with the exception of treatment for barbiturate problems, which is concentrated to a large extent in the Czech Republic and Hungary. Male to female ratios are relatively low compared with clients seeking treatment for other types of drug use, ranging from 0.2 in Latvia to 1.9 in Ireland. Nearly 50% of all females receiving treatment for this type of drug problem are over 39 years old but, again, the overall number reporting is low.

Figure 7

Male to female ratios for 15- to 16-year-old students, LTP tranquillisers or sedatives without a doctor's prescription, 2003



This figure shows that, unlike the situation for illegal drugs, the proportion of female students who have ever used tranquillisers or sedatives without a doctor's prescription is greater than that for males

Notes

Countries are ordered by increasing levels of prevalence (LTP) of all students in 2003 (right-hand axis). Their male to female ratios are plotted on a logarithmic scale (left-hand axis), and most are less than 1.0 (equality).

Sources

ESPAD 2003.

Figures for Germany are based on six regions only (Bavaria, Brandenburg, Berlin, Hesse, Mecklenburg-Western Pomerania and Thuringia).

Alcohol and drug comparisons

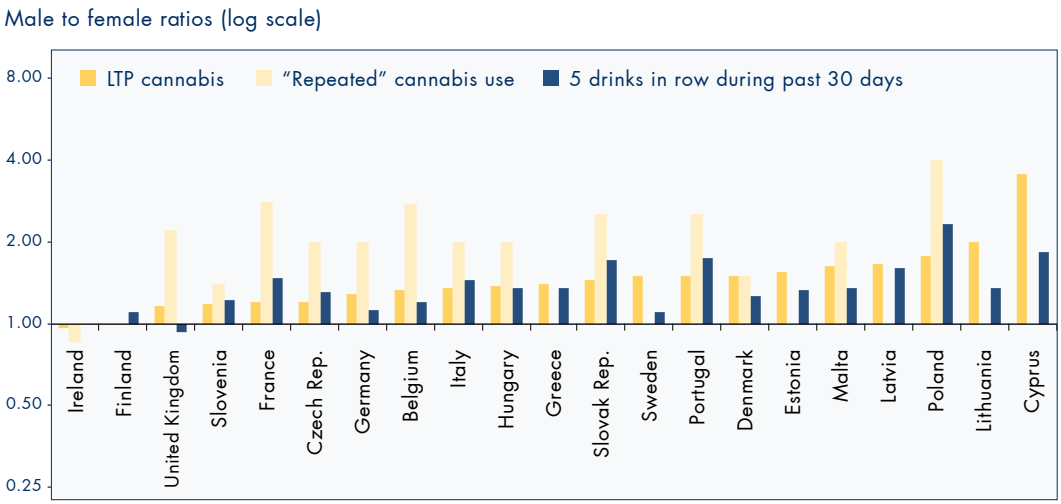
In most countries the vast majority (90% or more) of 15- to 16-year-old students have drunk alcohol at least once in their lifetime.

The frequency of consuming five or more drinks in a row during the past 30 days provides one measure of potentially more problematic alcohol use. Among 15- to 16-year-old students the current prevalence (at least once during the previous 30 days) of consumption of five or more drinks in a row ranges from 15% among females in Poland to 67% among males in Denmark.

Among school students aged 15–16 years, more males than females have current experience of drinking five or more drinks in one session, except in three countries (Ireland, the United Kingdom and Norway). In general, male predominance is lower in those countries where the prevalence rates on this measure are highest. The range of the gender difference is similar to that for cannabis (LTP), varying from 1.0 or under in Ireland, the United Kingdom and Norway to 2.3 in Poland. The gender ratios for this measure and for lifetime prevalence of cannabis use are broadly similar among different countries (a log scale correlation of 0.46). In contrast, the gender ratio for frequent cannabis use is higher and shows no clear correlation across countries with this measure of experience of repeat drinking (Figure 8).

Figure 8

Male to female ratios for 15- to 16-year-old students, LTP and 'repeated' use of cannabis, and drinking 5 or more drinks in one session, 2003



This figure shows that current experience (last 30 days) among 15- to 16-year-olds of drinking five or more drinks in one session is higher in males than in females except in three countries (Ireland, United Kingdom and Norway). In general, male predominance is lower in those

countries where the prevalence of drinking five or more alcoholic drinks in one session is highest. The gender ratios for this measure and for cannabis lifetime prevalence across countries are broadly similar (a log scale correlation of 0.46). In contrast, the ratio for 'repeated' cannabis use is higher and shows no clear correlation across countries.

Sources

ESPAD 2003.

In Cyprus, Sweden, Finland, Lithuania, Latvia and Estonia ratios could not be computed because of a zero prevalence.

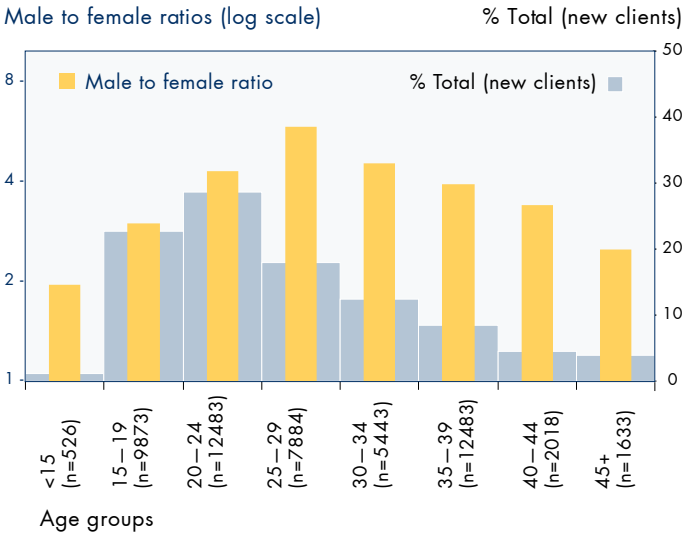
Use of drug treatment services

Data provided by treatment services in the European Union, as in most other parts of the world, demonstrate that male clients far outnumber female clients (Figure 9).

Self-referral and referral from family and friends are the most common routes for clients to access drug treatment services regardless of sex. However, males account for more than 90% of referrals originating from the criminal justice system, which is overall the third most common route of referral to specialist drug services.

Figure 9

Male to female ratios among new clients demanding treatment in outpatient centres in some European countries by age group for all drugs for which they sought treatment (no. of clients where age was known), 2002



This figure shows the overall age distribution of clients in treatment and demonstrates a male predominance at all ages (M:F 2:6).

Notes

Overall distribution shown (right-hand axis); male to female ratios are plotted on a logarithmic scale (left-hand axis) and are all greater than 1.0 (equality).

Sources

2002 TDI outpatient centres, REITOX national reports, 2003.

Countries included: Cz, Dk, Fin, Ge, Gr, Hu, Ir, Lv, Nl, Sl, Sp, Sw. No. clients: 43 605

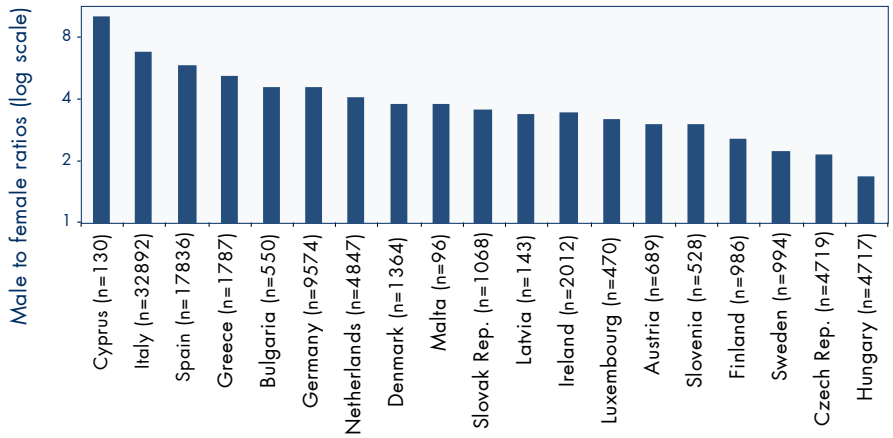
Male to female ratios among clients attending drug treatment services in the European Union differ significantly between countries: from 9.0 in Cyprus to 1.6 in Hungary. High male to female ratios are reported in Italy (6.5) and Spain (5.3) and relatively low ratios in the Czech Republic (2), Sweden (2.1) and Finland (2.6) (Figure 10).

The male–female ratio is higher among those seeking treatment primarily for problems with cocaine (5.8) and cannabis use (5.2) than among those with problems with opiate (3.7) and stimulant use (2.1). Females are more common among drug treatment service clients who have problems relating to use of amphetamine-type stimulants and sedative drugs than among clients receiving treatment for other drugs. Among those seeking treatment for problems with sedative-type drugs, females marginally outnumber males (0.9). It should also be noted that the ratio of females to males is greater among current injectors than among non-injectors. Male to female ratios are lowest in the under-20 and over-45 age groups, although no gender differences are found in the mean age of new clients (26.7 for males and 26.6 for females).

Female drug treatment clients report relatively higher educational levels than males, and females generally are less 'economically active' and more likely to be living with children than their male counterparts. In recent years, the proportion of females attending drug treatment services has increased in most European Union countries. The highest increases were reported in Germany, Greece, and the Netherlands. Almost no changes in male to female ratios were reported in Italy, Austria, Spain and

Figure 10

Male to female ratios among new clients attending drug treatment for all drugs by country in all types of treatment centres, 2002



This figure shows almost all the ratios between 2:1 and 6:1.

Sources

Standard Table 3, REITOX national reports, 2003, n = 91891, all types of treatment centres.

Discussion

The differences in the ratio of men to women found in the data presented above on different samples of illicit drug users raise some important issues for understanding patterns of illicit drug use in Europe. The EMCDDA will be addressing the topic of gender and drug use in a special focus issue in 2006. This publication forms part of the preparatory work for that special issue and is intended to stimulate debate on the influence of gender in determining differences found in patterns of drug use across Europe.

Among the more interesting observations made is the fact that, for those who have ever used cannabis or ecstasy, male to female ratios tend to be consistently higher among surveys of the adult population than among studies of school students. In addition, there is some evidence in school surveys conducted in 1995 and 2003 suggesting a narrowing of the gap between males and females. Some of the increase in prevalence rates found in the most recent school surveys reflects a greater increase in female drug use than in male. This lends support to existing evidence of a generation–cohort effect, with more equality of drug-taking experience observed in recent years, at least among school students. However, considerable variation remains between countries, and this generation effect seems to apply less to recent or regular use than to lifetime use. In those few countries where the male to female ratio among school students is increasing, both sexes show increasing prevalence but this is elevated among the male students. If young females are increasingly likely to experiment with drugs in the same manner as their male counterparts, this is indicative of a move towards more similar drug-taking patterns between the sexes in the future and could therefore be associated with a considerable increase in overall prevalence levels.

Surveys among the adult population across many countries show a fairly consistent correlation between higher male to female ratios and lower overall prevalence for lifetime cannabis use. In part this reflects differing levels in the new Member States, which joined the European Union in 2004 compared with higher-prevalence Member States. However, the relationship of low prevalence of lifetime cannabis use with a higher male to female ratio does not generally hold among a number of mainly Northern European countries. There are exceptions in Sweden, Finland and Norway, where relatively low overall prevalence is accompanied by a more balanced ratio of males to females. This male predominance at low prevalence levels is not seen in other data, such as data from schools surveys and on other drugs and patterns of more recent drug use. It is not clear to what extent this pattern is determined by persistent cultural factors that make males disproportionately prone to illicit drug experimentation and to what extent it arises from the fact that in many of these countries drug use is a relatively recent historical phenomenon, developing first within the male populations.

With regard to more widely used drugs, there is some similarity between male to female ratios for school students who have ever used

cannabis and the ratios for those who drank five or more alcoholic drinks in a row during the past 30 days but this is not observable for recent or frequent cannabis use. This may suggest a common association of drug use with an outgoing lifestyle. Illicit use of legal drugs – tranquillisers and sedatives – shows a markedly higher proportion of female than male students using them without a doctor's prescription. The exception is the United Kingdom, although this can probably be explained by the very low prevalence of tranquilliser and sedative use reported by United Kingdom students. Data from the different rounds of the ESPAD school survey suggest few consistent trends in the prevalence of tranquilliser or sedative use, although overall there is a downwards drift. It remains, however, a pattern of drug use that is poorly understood and in which females predominate; as such it merits future research attention.

Data from outpatient drug treatment services show that the highest proportions of females receiving drug treatment are among young (under 20 years old) clients with problems relating to amphetamine-type stimulant (ATS) drugs and among older (over 39 years old) clients with problems resulting from the use of sedative (pharmaceutical) drugs. This suggests the importance of the following questions:

- Are drug treatment services less accessible to or efficacious for female clients over 20 and under 40 years of age, a range particularly covering the child-rearing years?
- Do females develop patterns of problem drug use that are markedly different from their male counterparts?
- To what extent are these figures artefacts of the collection methods in some of the contributing Member States?

Underlying trends in the data presented can be discerned only by taking a broad overview to take account of the considerable amount of between-country variation. But patterns are detectable, for example the ratio of females in relation to males tends to increase as prevalence of drug use increases and is generally lower for the more illegal drugs and for recent or frequent patterns of drug use. The trends suggest explanations linked to lifestyle influences intrinsically related to gender or age or to the dynamic factors that determine the development of drug fashions across Europe. Detailed analysis of male to female ratios can yield important information about changing lifestyles in relation to patterns of drug use and about the potential efficacy of drug prevention and treatment services for different client groups. It is essential to identify the influences of gender on the trends in order to understand their direction and develop appropriate responses.

Sources

EMCDDA Annual report 2004 (http://annualreport.emcdda.eu.int).

EMCDDA Statistical bulletin 2004 (http://stats04.emcdda.eu.int).

ESPAD (The European School Survey Project on Alcohol and Other Drugs,1995,1999 and 2003) is co-ordinated by The Swedish Council for Information on Alcohol and Other Drugs. (CAN) and Council of Europe (Pompidou Group). For further details see http://www.espad.org/method.html